

RIO ALGOM

MINES LIMITED

ANNUAL REPORT 1972

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Rio Algom
Rio Tinto





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Rio Algom Mines Limited

120 Adelaide Street West
Toronto, Canada
M5H 1W5

Officers

Sir Val Duncan	Chairman
R. D. Armstrong	President
G. R. Albino	Executive Vice-President and Chief Operating Officer
A. F. Lowell	Vice-President, Minerals Marketing
H. A. Pakrul	Vice-President, Controller
J. A. Sadler	Vice-President, Exploration
A. C. Turner	Vice-President, Secretary
J. Van Netten	Vice-President, Treasurer

Directors

G. R. Albino	Toronto	Executive Vice-President and Chief Operating Officer of the Company
W. A. Arbuckle	Montreal	President, Arbuckle, Govett & Co. Ltd.
*R. D. Armstrong	Toronto	President of the Company
J. Ian Crookston	Toronto	President, Nesbitt, Thomson and Company, Limited
*Sir Val Duncan, OBE	London, England	Chairman of the Company and Chairman, The Rio Tinto-Zinc Corporation Limited
J. G. Edison, QC	Toronto	Partner, Edison, Aird and Berlis
*Sam Harris	New York, U.S.A.	Partner, Fried, Frank, Harris, Shriver and Jacobson
L. A. Lapointe, QC	Montreal	President, Miron Company Ltd.
*B. R. MacKenzie, QC	Toronto	Counsel to Fasken & Calvin
Leo Model	New York, U.S.A.	Chairman and Chief Executive, Model, Roland & Co., Inc.
W. D. Mulholland	Montreal	President and Chief Executive Officer of Brinco Limited and Chairman & Chief Executive Officer of Churchill Falls (Labrador) Corporation Limited
F. A. Petito	New York, U.S.A.	Partner, Morgan Stanley & Co.
*J. Herbert Smith	Toronto	Consulting Engineer
Sir Mark Turner	London, England	Deputy Chairman, The Rio Tinto-Zinc Corporation Limited
R. W. Wright, CBE	London, England	Deputy Chairman, The Rio Tinto-Zinc Corporation Limited
*Members of the Executive Committee		

Annual and General Meeting

The Company will hold an Annual and General Meeting on Friday, April 13, 1973 at 10:00 a.m. Eastern Standard Time, in the Ontario Room, Royal York Hotel, 100 Front Street West, Toronto, Ontario, Canada.

Directors' Report

TO THE SHAREHOLDERS:

The year 1972 was the most successful in Rio Algom's history. It was marked by the attainment of record sales and earnings together with the commencement of operations at two new mines: the wholly-owned Lisbon uranium mine located near Moab, Utah, and the Lornex copper mine near Ashcroft, British Columbia which the Company manages and in which it has a beneficial interest of approximately 55%.

Earnings from uranium operations at Elliot Lake improved, reflecting increased production from higher grade ore milled and improvement in the sales mix under existing contracts; the new Lisbon uranium mine made a modest profit. Lornex incurred a loss in its initial operating period, and Rio Algom's equity portion thereof has been charged against earnings.

The average price of copper in 1972 was virtually unchanged from the average price in 1971. Production at the wholly-owned Poirier mine was lower and operations at the Anglo-Rouyn mine were terminated in August 1972. Rio Algom's 58% interest in Anglo-Rouyn was disposed of in December 1972.

The improvement achieved in stainless and specialty steel operating results, despite continuing difficult market conditions and international currency problems, reflects the success of profit improvement and product rationalization programs.

Exploration was carried out at about the same level as in the previous year. No exploration for uranium was conducted in Canada because of the position taken by the Government of Canada regarding foreign ownership in the Canadian uranium industry. Uranium exploration was carried out in the United States together with programs

directed at discovery of other viable mineral deposits in Canada and the United States. Investigation of the Sage Creek coking coal and Lac Roberge asbestos projects will be continued in 1973.

Although the short-term uranium market continues to be weak, there is substantive evidence that demand will be strong in the latter part of the 1970's. Spot sales of minor quantities of uranium oxide were made during the year. The Company holds firm contracts for the delivery of 47,694,000 pounds of uranium oxide from the Elliot Lake and Lisbon mines which assures continuity of uranium operations into the early 1980's on the basis of contracts now held. The Company's established productive capacity at the Quirke mine and the potential of several shut-down mines place it in an effective competitive position in relation to the anticipated longer-term market improvement.

The strengthening of copper prices in early 1973, will, if maintained, have a modest effect on the Poirier operation, and will have a substantial effect on the earnings of the larger Lornex mine.

While the Atlas specialty and stainless steel operation is efficient and competitive, it faces formidable industry problems that are beyond its control. These include substantial world overcapacity, increasing protectionism in foreign markets, international currency problems, significant cost increases, and what Atlas considers to be dumping by some foreign producers into Canadian markets. The profit improvement and product rationalization programs initiated in 1971, which contributed to the improved results in 1972, are being intensified.

The uncertainties with regard to economic and legislative forces that affect the Company's operations as reported last year are still present and basic international currency and trade problems have not been resolved. The effect of the new Canadian

tax legislation enacted with effect from January 1, 1972 is not yet fully understood and the consequences of proposed legislation on business activity are still not clear.

Despite the uncertainties mentioned, it is expected that 1973 will be a year in which further progress will be made towards the Company's longer term objective of broadening its base as a natural-resource developer.

On October 27, 1972 Mr. G. R. Albino, formerly Executive Vice-President, was elected Executive Vice-President and Chief Operating Officer of the Company. On September 20, 1972 Mr. A. V. Orr, formerly Vice-President Sales and Marketing of Atlas Steels, was appointed Vice-President and Assistant General Manager of Atlas Steels, and Mr. W. D. Dobbin, formerly General Manager of Atlas Alloys, was appointed Vice-President, Service Centres of Atlas Steels, both reporting to Mr. Albino as General Manager of Atlas Steels. On December 15, 1972 Mr. C. W. Reno, formerly Operations Manager of Lornex Mining Corporation Ltd., was appointed Vice-President and General Manager of that company, in succession to Mr. N. F. Warren, with senior responsibility for operation of the Lornex mine.

The achievements of the Company in 1972 were made possible by the loyal efforts of its employees. The Directors extend their appreciation for the dedicated efforts of the management and employees of Rio Algom and its associated companies.

On behalf of the Board,

Toronto, Ontario
February 23, 1973.

R. D. Armstrong,
President.

Highlights of 1972 Consolidated Operations

(\$000's omitted)

	1972	1971
Sales	\$ 187,218	\$ 168,029
Net earnings	\$ 16,308	\$ 9,698
Per share of common stock	\$ 1.27	\$.73
Dividends paid on common stock	\$ 4,900	\$ 4,900
Per share	40¢	40¢
Working capital, year end	\$ 65,204	\$ 65,170
Ratio of current assets to current liabilities	2.2 to 1	2.7 to 1
Common shareholders' equity	\$ 176,547	\$ 165,861
Total common shares outstanding at December 31	12,249,584	12,249,584
Equity per share of common stock outstanding	\$ 14.41	\$ 13.54
Production		
Uranium oxide (Pounds)	5,397,047	4,492,389
Copper in concentrate (Pounds)	31,770,433	37,326,192
Steel (Tons)	159,439	139,810
Number of employees at December 31	5,302	5,169

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Review of Operations

MINING

Earnings from Rio Algom mining operations before income and mining taxes were \$20,776,000 compared to \$13,836,000 in 1971. Total revenue was \$54,629,000 an increase of \$7,772,000 compared to the previous year. These figures do not include the operations of Lornex Mining Corporation Ltd. which are summarized elsewhere in this report.

Revenue and earnings from the Elliot Lake uranium operations increased over 1971 because of higher production, mainly due to better uranium grade, and improvement in the uranium sales mix. The Lisbon Mine in Utah commenced operations on October 1, 1972 and earned a modest profit in the initial three month operating period ended December 31, 1972.

Revenue and earnings from copper operations were lower than in the previous year. Although average copper prices realized were about the same as in the previous year payable copper production was lower, mainly because of lower average grade at Mines de Poirier and termination of operations at the Anglo-Rouyn mine in August 1972. Earnings from the Poirier operation were also adversely affected by higher smelting charges applicable under the terms of a new contract in effect from February 1972.

URANIUM

Elliot Lake

Comparative production and deliveries of uranium oxide from the Elliot Lake mines in 1972 and 1971 were as follows:

	1972	1971
Tons of ore milled (thousands)	1,551	1,564
Average tons milled per day	4,630	4,587
Average recovered grade per ton	3.3 lbs.	2.9 lbs.
Average mill recovery	95.4%	95.0%
Pounds of uranium oxide produced (thousands)	5,158	4,492
Pounds of uranium oxide delivered (thousands)	4,471	3,013

In 1972 all mining was in the higher grade New Quirke orebodies; in 1971 progressively greater tonnages of ore had been mined from New Quirke until the Old Quirke mine was closed at the end of that year. Although the average daily milling rate was somewhat higher in 1972 the total tonnage of ore milled was slightly lower because of a three week vacation shut down, rather than the normal two weeks. The New Quirke mine and mill have demonstrated production capability at a rate in excess of 4,500 tons per day, sufficient to meet deliveries into the mid 1970's under present sales contracts.



1.

2.
*Miners descend Lisbon's
ventilation shaft during the
last stages of the mine's
development.*

Lisbon Mine

The mine and mill were not brought into production until the fourth quarter of 1972 primarily because of delays in underground development caused by water flows. These flows were controlled but required the installation of additional pumping facilities; in addition difficulty was experienced in handling wet ore.

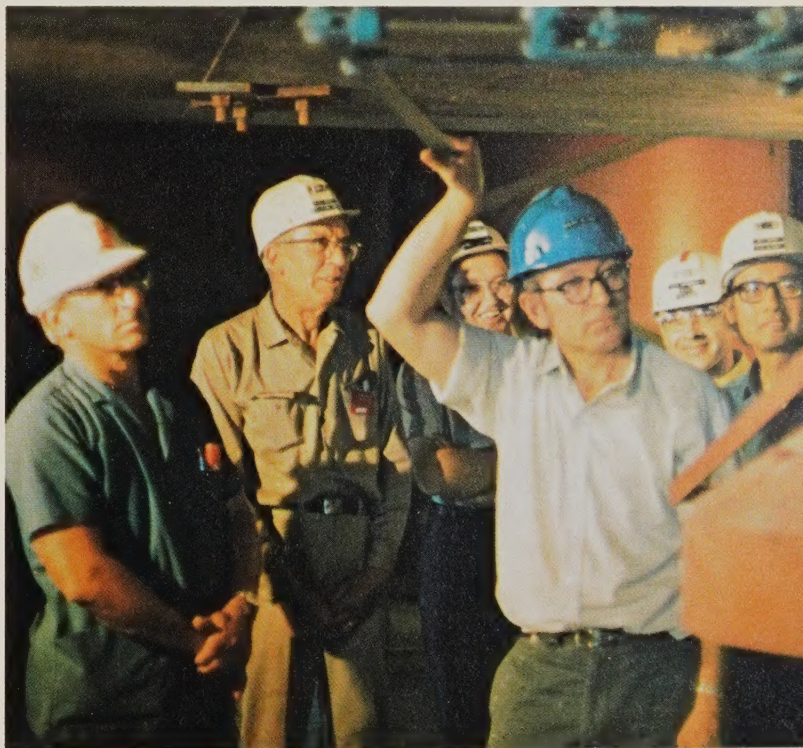
Mill start-up could not begin until the necessary permit was obtained from the United States Atomic Energy Commission. Waste rock was used in the initial run-in of the mill until a Provisional Permit for Raw Material was issued on June 7, 1972, at which time mine grade ore was introduced to the milling circuit.

From commencement of operations on October 1, 1972 to December 31, 1972, 41,420 tons of ore were milled for an average of 460 tons of ore per milling day. Average recovered grade was 5.43 pounds of uranium oxide per ton and the average mill recovery rate was 90.4%. A total of 350,000 pounds of uranium oxide was produced during the start up period and after commencement of operations. Deliveries were 250,000 pounds of uranium oxide.

On the basis of the October 1, 1972 date for commercial production the total project cost is approximately US \$23.6 million compared to the original estimate of US \$20.0 million. The increase is attributable to the unusual degree of cost escalation which was experienced, the need to comply with more stringent pollution regulations and delays in mine development caused by the excess flow of water encountered in 1971. The additional financial requirements were provided by increasing bank loans during the year to a total of US \$19.6 million.

3.
*Bug's eye view of Lisbon
uranium mine which went into
production in 1972. It is located
in southeast Utah near the
town of Moab.*

4.
*Historic moment when Lisbon's
first batch of uranium con-
centrate was packaged.*



COPPER

Comparative production from copper operations in 1972 and 1971 at the Poirier and Anglo-Rouyn mines was as follows:

	Total		Mines de Poirier		Anglo-Rouyn	
	1972	1971	1972	1971	1972 (Note)	1971
Copper						
Tons of ore milled (thousands)	834	923	652	614	182	309
Average tons milled per day	—	—	1,836	1,748	813	855
Average mill head grade	—	—	2.2%	2.6%	1.9%	1.5%
Average mill recovery	—	—	92.8%	94.3%	97.1%	96.0%
Pounds of payable copper in concentrate produced (thousands)	31,770	37,326	25,558	28,834	6,212	8,492
Other Metals						
Silver produced (ounces)	65,818	83,590	34,444	42,217	31,374	41,373
Gold produced (ounces)	8,382	11,914	—	—	8,382	11,914

Note: Mining operations were terminated by Anglo-Rouyn Mines Limited on August 16, 1972.

Mines de Poirier

Alterations to facilities in 1971 to increase the milling rate from 1,600 to 1,800 tons per day resulted in the increase in the average daily rate achieved in 1972.

A cave-in in a blast-hole stope in September of 1972 resulted in a substantial quantity of low grade material having to be processed and this affected the mill head grade significantly. The lower average mill recovery rate in 1972 was partly due to the necessity for raising the concentrate grade to avoid penalties under a new smelter contract. However, the addition of a new re-grind mill resulted in improved recovery rates after its installation in the latter part of the year.

Both copper and zinc ores were custom milled for Joutel Copper Mines Ltd. during the year.

Anglo-Rouyn Mines Limited

Upon exhaustion of the commercial ore reserves of the mine, operations were terminated on August 16, 1972 and the mine was permanently closed. In accordance with the terminal mining plan higher grade pillars were recovered resulting in a higher average mill head grade than in the previous year.

Pursuant to a take over bid made to all Anglo-Rouyn shareholders on December 11, 1972 Rio Algom sold its 58.17% interest in the company at a profit of \$275,000 which is included in earnings for the year. In accordance with the terms of the bid Rio Algom received \$2.2 million cash from this sale in January 1973.

Logan Lake, the community built to house Lornex personnel and their families, was virtually completed in 1972. Like its larger counterparts, it even has townhouses, the latest fashion in urban living.



Lornex, the copper-molybdenum mine in British Columbia's Highland Valley, began production in 1972. Overall view shows the plant and related facilities in foreground, the coarse ore stockpile and conveyor from the primary crusher, and in the upper left, the production pit.



Lornex

The copper-molybdenum mine of Lornex Mining Corporation Ltd., in which Rio Algom has a beneficial interest of 55.29%, commenced operations on October 1, 1972. Highlights of the three month operating period ended December 31, 1972 and the financial position as at that date are summarized as follows:

Production

Tons of ore milled (000's)	2,852
Average tons milled per day	30,998
Average mill head grade — copper	0.429%
Average mill recovery — copper	87.9%
Pounds of payable copper produced (000's)	20,910
Pounds of molybdenum produced	581,000
Ounces of payable silver produced	80,000

Results of Operations \$ (000's)

Net revenue from production	\$	8,947
Operating expenses	\$ 5,632	
Amortization and depreciation	1,781	7,413
Operating profit		1,534
Interest on long term debt		2,749
Net loss for the period	\$	1,215

Summary of Financial Position \$ (000's)

Current assets	\$	15,250
Current liabilities:		
Long term debt due		
within one year	\$ 6,153	
Other current liabilities	6,996	13,149
Working capital		2,101
Fixed and other assets (net)		140,887
		142,988
Long term debt less due		
within one year		133,147
Net assets	\$	9,841

Completion of development and construction and the commencement of operations had been scheduled for the second quarter of 1972. Unexpected delays were encountered in completion of construction, and as a consequence, the first ore was not introduced into the mill until April. Subsequently, progress toward achieving the mill design average rate of 38,000 tons per day was delayed by mechanical considerations normal in the early stages of a project of this scale and was interrupted on July 3 by a 37 day work stoppage. Daily milling rates fluctuated during this period due to mill stoppages caused by mechanical problems and to variations in hourly milling rates that occurred during the process of identifying and controlling the ore blend and ball charge combinations required to optimize the primary autogenous milling system employed by Lornex.

Milling rates in excess of the design average rate of 38,000 tons per day are now being achieved for



Lornex: A bolt is tightened on a giant autogenous mill just prior to start of production.



First shipment of copper concentrate on its way to Ashcroft from where it was trans-shipped by rail to Vancouver.

sufficiently extended periods to support the opinion expressed earlier that the design rate will be consistently exceeded in due course.

Mine development was carried out by Lornex forces with the equipment which is being used in mining operations. During the development period a total of 60.9 million tons of overburden, waste rock and oxide ore was removed on schedule and within budget at rates that exceeded 150,000 tons per day at the peak of the pit preparation period. In addition 3.4 million tons of ore was mined during this period.

Financing of the Lornex Project was completed during the year. This involved drawing down the residual amount of \$24 million available under a bank loan agreement. In addition, Rio Algom purchased Units of Income Debentures and shares for \$4,352,000 during 1972 under the supplementary financing provisions of the Construction and Management Agreement. In accordance with a previous agreement 27.5% of these Units were sold at cost by Rio Algom to The Yukon Consolidated Gold Corporation Limited. Rio Algom's total investment equity of \$39.6 million in Lornex at December 31, 1972 is described more fully in note 3 to the consolidated financial statements.

EXPLORATION

Exploration expenditures by Rio Algom and its subsidiaries were \$2,447,000 compared with \$2,385,000 in the previous year. This level of expenditure is in accordance with long term exploration programs which are being continued in the search for new orebodies in Canada and the United States.

During the year the long term program initiated in 1967 directed toward identification of porphyry copper mineralization was continued on both reconnaissance and detail scale in British Columbia. Other exploration programs were carried out in Saskatchewan, Ontario, Quebec and in the United States. Investigations will continue in these areas.

Exploration for uranium was continued in the United States. In Canada, no new exploration for uranium was carried out and work was conducted only on uranium properties in which an interest was held in March 1970 when the Government of Canada announced its intention to limit foreign ownership in the Canadian uranium industry.

The asbestos prospect located near Lac Roberge in northwestern Quebec and the coking coal deposit in southeastern British Columbia were investigated from underground and bulk samples obtained for test purposes. Preliminary engineering, market studies and economic evaluations of both prospects will be continued in 1973.



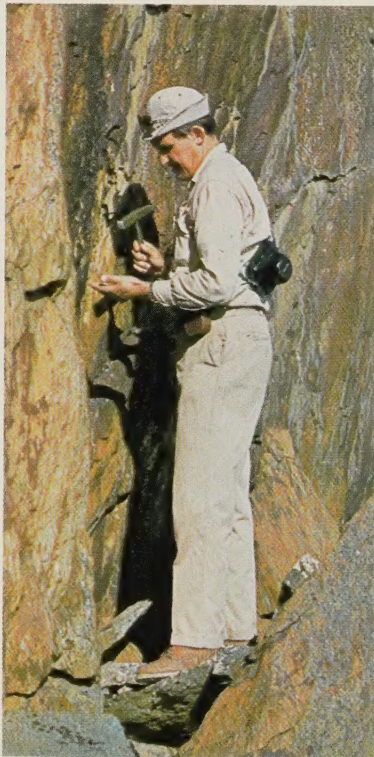
1.



2.



3.



4.

1. Sleds are still used in the north, but the dogs have been replaced by a more modern power source as in this scene in Ontario's Sturgeon Lake area.

2. In southern B.C. bulk samples were taken at a coal prospect.

3. Exploring for new mines is given high priority by Rio Algom. Programs were carried out across much of North America and, for the first time, included Alaska. Here a helicopter-borne geologist takes a soil sample in north-west Alaska.

4. Geologist finds he has to be something of a cliff climber as he checks out a base metals prospect in northern Manitoba.



Tomato patch on one of Elliot Lake's unused tailings areas offers evidence of increased success in the Company's efforts to grow vegetation on land no longer required for production purposes. The tomatoes were grown after more than three years of frustratingly slow progress. In all some 84 acres were seeded at the Elliot Lake operations.

RESEARCH AND DEVELOPMENT

Research and development work in 1972, which was directed toward reducing mining and milling costs and increasing productivity, produced significant results in one area.

A high degree of success is being achieved in the development and use of a system of underground bench stoping in the thicker ore of the New Quirke Mine, using a new type of benching rig. The new system evolved partially from earlier trials which had proved the capability of a method of accurate long hole drilling with custom-designed equipment; use of this method proved uneconomic in the ground conditions of the areas presently being mined.

Tests are continuing to determine the applicability of a hydraulic backfill system to the New Quirke Mine. The objective is to permit increased mechanization and the economic recovery of ore from pillars in the thicker ore zones now being developed.

EMPLOYEE RELATIONS

At December 31, 1972 there were 1,949 employees engaged in mining operations of whom 1,507 were engaged in production and 442 were engaged in executive, technical, administrative or clerical functions. Employee relations continued to be good and apart from a strike of Lornex employees from July 3 to August 9, 1972 there were no strikes or work stoppages during year.

The collective agreements with the majority of hourly rated employees at the Elliot Lake operation expired on January 15, 1973; negotiation of a new agreement, begun in November, 1972, has not yet been concluded. An agreement with the hourly rated employees of Mines de Poirier is in effect until December 21, 1974. An agreement with the employees of Lornex, replacing the agreement which expired on June 30, 1972, was signed on August 7, 1972 and will be in effect until June 30, 1974.

STEEL

Earnings from steel operations were \$3,439,000 an increase of 61% over restated earnings for 1971 of \$2,131,000. The 1971 figure for steel earnings differs from that previously reported by reason of reclassification for comparative purposes of certain expenses. The earnings in each year are stated after deduction of \$1,047,000 representing the annual charge for amortization of the excess of acquisition cost over adjusted book value of the Atlas Steels assets purchased as at December 31, 1962. Total sales, including metal products purchased by warehousing operations for resale, were \$132,589,000 or 9% higher than in 1971. The increase in sales and earnings reflect the stronger demand in the last half of the year, particularly in the domestic market, together with the results of profit improvement and product rationalization programs.

The demand for stainless and specialty steels which had declined throughout 1971 began to show an upturn by the second quarter of 1972, as the improvement in the Canadian economy began to make itself felt. However, downward price pressures continued in virtually all markets for stainless steels, the major product group, and selling prices declined below the relatively low levels already experienced in 1971. On other products price levels were generally maintained or at best, in a few cases, increased modestly.

The steel operation continued to face formidable problems, many of which were beyond its control. These included substantial world overcapacity in stainless steel, increasing protectionism in foreign markets, international currency problems such as the devaluation of the pound sterling in mid year, significant cost increases, and what Atlas considers to be dumping by some foreign producers in Canadian markets.

In the face of these factors, a degree of profitability was maintained only through extraordinary efforts, including staff reductions, significantly larger manufacturing cost reductions than were considered feasible a year ago, and the elimination of some unprofitable products. The profitability of the Atlas warehousing operations was improved in 1972.

MARKETING AND DISTRIBUTION

During the year sales volume in Canada increased with the generally higher level of Canadian economic

activity. Imports of steel products into Canada, particularly of stainless flat rolled products, continued at a high level but began to decline somewhat towards the end of the year. Prices on these imported products are considered to be extremely low and had a significant adverse effect on the profitability of major product lines produced at both Tracy and Welland plants. Investigations by the Federal Government are underway with respect to alleged dumping into Canada of stainless flat rolled products from Japan and Sweden and alloy steel bars from Sweden and Austria.

Increased sales volume in Canada was achieved over a wide range of products. The improvement in demand for automotive end use products, and towards the end of the year, for project type products required for the increased level of capital expenditures made by Canadian industry was of major significance. Average selling prices declined in the major product line of stainless steel. This was caused by foreign competition and the necessity to support Canadian automotive parts suppliers in remaining competitive under the Auto Pact in the face of price erosion in the United States. On other product lines price levels were either generally maintained or in some cases increased moderately.

In the United States sales volumes and profit margins were held at about the level of the previous year in the face of severe competition. Some improvement in results was achieved through the expansion of warehouse processing services.

A moderate increase in sales volume was achieved in the United Kingdom despite the continuance of a very competitive market. Selective marketing enabled a modest improvement in profit margins to be achieved under these difficult conditions.

In Australia sales volume improved slightly and profit margins were maintained in a relatively strong market. Improvements in this area are inhibited by the continuance of prohibitive tariffs introduced in 1970 on stainless steel flat rolled products to protect domestic producers.

Market conditions improved slightly in the European and South American markets enabling modest profits to be achieved through selective selling.



Versatility of Atlas' stainless-steel is shown by its varied applications. Sculptor Tony Gsellmann used "type 304" to create two 12-foot football goliaths in collision at the entrance to the Canadian Football Hall of Fame in Hamilton.

MANUFACTURING

During the year the profit improvement programs developed to improve manufacturing efficiency, quality and utilization of raw materials resulted in substantial reductions in manufacturing costs which modified but did not offset cost increases.

At the Welland plant the low levels of production experienced in the first half of the year adversely affected the plant's operating performance. However, as production activity increased in the last half of the year the benefits of the cost improvement programs developed and instituted in previous years and in 1972 were reflected in increased productivity and improved quality and yield. A contributing factor in this regard was a major reorganization of the manufacturing operation, including staff support, which was effected early in the year.

The Tracy plant also experienced a low level of production in the early part of the year but by year end was operating at a high level. During the year a concentrated effort was made to improve yields. This ongoing program, which produced significant results in 1972, is expected to produce further improvements in 1973.

RESEARCH AND DEVELOPMENT

In 1972 the major thrust of the consolidated development groups was directed to increased emphasis on process improvements and cost reductions, and to improvement of product yield.

Mining steel alloy development continued with field testing of fabricated drill rods initiated in several areas. Programs relating to reducing raw material costs were intensified.

PLANNING

The analysis of options available for further rehabilitation and modernization of the Welland plant continued during the year. The programs initiated in 1971 to examine product lines for the purpose of re-alignment by both rationalization and expansion to improve profitability were continued. As a result of these examinations the manufacture of a number of products is being discontinued and results for other products have been improved. Effort on similar type programs is being intensified in 1973.

Detailed studies of several new capital programs were carried out during the year, including a study of the Tracy plant melting operation. This study of two steel refining processes which began in 1971, is virtually complete and when the process selected is in operation substantial economies in the melting of stainless steel at the Tracy plant will be realized.

EMPLOYEE RELATIONS

As of December 31, 1971 there were 3,141 employees engaged in steel operations of whom 1,922 were engaged in production, 599 in sales and marketing and 620 in executive, administrative or clerical functions. Employee relations were good through the year and there were no strikes or work stoppages.

The collective agreement with the Welland plant hourly rated employees expired on February 17, 1973; negotiation of a new agreement has not been concluded. A collective agreement with Welland office and technical employees, replacing the agreement which expired on December 31, 1971, was signed on June 14, 1972 and will be in effect until August 31, 1973. A collective agreement with the Tracy plant hourly rated employees, replacing the agreement which expired on November 30, 1972, was signed on January 17, 1973 and will be in effect until November 30, 1975. The collective agreement with the Tracy office and technical employees is in effect until February 1, 1974.



Mirror, mirror on the wall . . . is actually Atlas stainless "type 302" at La Maison de Radio Canada in Montreal.



Top Photo: Pipeline on wheels is this 7,500-gallon stainless steel double tanker. Made of Atlas "type 316", the trailer can carry a variety of chemical fluids.

Bottom Photo: Atlas Alloys Etobicoke warehouse and service centre (architect's sketch) which is being expanded to permit consolidation of the metals distributor's Toronto operation now divided between Etobicoke and its Lakeshore Boulevard service centre.

FINANCIAL

Consolidated net earnings for 1972 were \$16,308,000 as compared with net earnings of \$9,698,000 for 1971. The net earnings for 1972 are after deducting \$672,000, representing the Company's 55.29% share of the \$1,215,000 net loss incurred by Lornex Mining Corporation Ltd. from operations in the three months ended December 31, 1972. Net earnings per share were \$1.27 in 1972 and \$0.73 in 1971; in both cases the earnings per share are stated after provision for dividends on preference shares.

The increase of \$7,282,000 in net earnings from operations resulted from increases in earnings from mining and steel operations of \$6,940,000 and \$1,308,000 respectively and a decrease in corporate expenses and net interest costs of \$26,000 which were partially offset by an increase in taxes of \$992,000. As previously mentioned the improvement in earnings from mining operations was mainly due to higher uranium production and an improved uranium sales mix while the increase in steel earnings resulted primarily from profit improvement and product rationalization programs. Investment and other income was substantially higher in 1972 due to the inclusion of \$909,000

in interest earned on the Lornex income debentures held by Rio Algom during the three month Lornex operating period. The increased taxes were mainly the result of the higher earnings from mining operations.

During 1972 dividends of \$796,000 on preference shares and \$4,900,000 on common shares were paid. Dividends on common shares were paid at the same rate of 40¢ per share as in 1971 and represented 30% of consolidated net earnings.

Bank loans increased during the year from \$13,362,000 to \$26,418,000 of which borrowings to finance the construction of the Lisbon uranium mine in Utah totalled US \$19,600,000 at the end of the year; this loan is convertible to a term basis when certain operating requirements are complied with. During the year \$8,850,000 was expended on capital projects, including US \$5,684,000 on the Lisbon mine, and \$3,155,000 (net) was invested in securities of Lornex Mining Corporation Ltd. The net excess of assets over liabilities increased to \$190,031,000 from \$179,761,000.

Auditors' Report

To the Shareholders of Rio Algom Mines Limited:

We have examined the consolidated statement of financial position of Rio Algom Mines Limited as at December 31, 1972 and the consolidated statements of earnings, retained earnings, contributed surplus and changes in financial position for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1972 and the results of their operations and the changes in their financial position for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada,
February 15, 1973.

COOPERS & LYBRAND
Chartered Accountants

ACCOUNTING POLICIES

The principal accounting policies followed by Rio Algom Mines Limited and its subsidiaries are summarized hereunder to facilitate a comprehensive review of the financial statements contained in this report.

BASIS OF CONSOLIDATION

The consolidated financial statements include the accounts of all significant majority-owned subsidiary companies. The investment in Lornex Mining Corporation Ltd. is carried on the equity accounting method.

The accounts in foreign currencies are stated in Canadian dollars on the following basis:

Current assets and current liabilities at year-end exchange rates; all other assets and any related depreciation at rates in effect at date of acquisition; and revenues and expenses (other than depreciation) at average rates for the year.

VALUATION OF INVENTORIES AND CONCENTRATES AWAITING SHIPMENT

Inventories of steel, other metals, raw materials and supplies are valued at the lower of cost and market. Cost is determined generally at average or standard costs which approximate actual. Market for steel and other metals is net realizable value and for raw materials and supplies is replacement cost. Inter-company profits have been excluded from these inventories.

Concentrates awaiting shipment are valued at selling price.

DEPRECIATION AND AMORTIZATION

The following accounting policies are being followed in connection with the depreciation charges of the Company:

(i) Mining fixed assets:

Depreciation is being provided on fixed assets on the basis of the shorter of physical life or economic life, as estimated for the individual mining units, the economic life to be adjusted from time to time as conditions warrant.

(ii) Steel fixed assets:

Fixed assets are being depreciated on the straight line method based on engineering estimates of the lives of the assets at the following rates:

Buildings	4% per annum
Plant and equipment	6 $\frac{2}{3}$ % per annum

Mining properties and preproduction expenditures are being amortized on the same basis as depreciation is provided on mining fixed assets.

Other costs applicable to future periods are being amortized on a straight line basis over a 20 year period which will end in 1982. Discounts realized on purchase for cancellation of debentures were applied to eliminate the unamortized balance of discount and financing expenses and the remainder is included in earnings for the year.

DEVELOPMENT PROJECTS AND EXPLORATION

Development projects are carried forward as assets while the projects are considered to be of value to the Company. All exploration expenses have been written off.

INCOME TAXES

Because the Company did not claim depreciation or mine development expenses during the tax exempt periods of its mines, it has available sufficient of such expenses to eliminate taxable income for the year. The Company does not intend to provide for income taxes so long as the accumulated amount of these expenses claimed for tax purposes is less than the accumulated amount recorded in its accounts.

Under applicable Canadian income tax legislation, income from new mines is tax exempt for a period of three years from the date of commencement of commercial production; accordingly, the Company has applied for a tax free period for its Quirke II mine. The application has not yet been ruled on by the Federal Income Tax authorities. The Company's tax advisers are of the opinion that the circumstances of the application are such that the Company should expect a tax free period to be granted in respect of the Quirke II mine.

In the event that the tax free period is not granted the Company would still have sufficient depreciation and mine development expenses to offset taxable income for the years involved and no income taxes would be payable on its earnings to date; however net earnings to the end of 1972 would be reduced by a provision for deferred income taxes of approximately \$9 million.

Full provision has been made for Provincial mining taxes and the income taxes of subsidiary companies.

RIO ALGOM MINES LIMITED

(Incorporated under the laws of Ontario)

Consolidated Statement of Financial Position

DECEMBER 31, 1972

(\$000's omitted)

CURRENT ASSETS:	1972	1971
Cash and short term deposits	\$ 10,986	\$ 3,093
Receivables	33,193	30,367
Due from affiliated and associated companies	3,148	1,191
Inventories and concentrates awaiting shipment (note 2)	72,474	67,209
Prepaid expenses	1,013	939
Total	<u>120,814</u>	<u>102,799</u>
Less:		
CURRENT LIABILITIES:		
Bank loans	26,418	13,362
Accounts payable and accrued liabilities	23,482	20,244
Provision for income taxes including Provincial mining taxes	4,363	2,422
Preference share dividend payable January 1	195	201
Long term debt due within one year (note 7)	1,152	1,400
Total	<u>55,610</u>	<u>37,629</u>
WORKING CAPITAL	65,204	65,170
Settlements receivable — 1974	6,903	—
Investment in Lornex Mining Corporation Ltd. (note 3)	39,580	36,104
Plant and equipment, less depreciation (note 4)	74,984	77,690
Mining properties and preproduction expenditures, less amortization (note 5)	22,959	22,242
Other costs applicable to future periods (note 6)	10,465	11,895
TOTAL ASSETS LESS CURRENT LIABILITIES	<u>220,095</u>	<u>213,101</u>
Deduct:		
Long term debt (note 7)	30,000	32,000
Minority shareholders' interests in subsidiary companies	64	1,340
	<u>30,064</u>	<u>33,340</u>
EXCESS OF ASSETS OVER LIABILITIES	<u>\$190,031</u>	<u>\$179,761</u>
OWNERSHIP EVIDENCED BY (note 8):		
Capital stock	\$ 85,921	\$ 86,337
Contributed surplus	19,655	19,581
Retained earnings	84,455	73,843
Total	<u>\$190,031</u>	<u>\$179,761</u>

Approved on behalf of the Board:

J. H. SMITH, Director

R. D. ARMSTRONG, Director

Consolidated Statement of Earnings

YEAR ENDED DECEMBER 31, 1972

(\$000's omitted)

REVENUE:	1972	1971
Revenue from mine production and sales of steel and other products	\$187,218	\$168,029
Investment and other income	1,675	580
	<u>188,893</u>	<u>168,609</u>
EXPENSES:		
Cost of production, selling, general and administrative expenses	152,279	141,878
Interest and amortization of discount and financing expenses	2,893	2,307
Depreciation and amortization (note 11)	11,245	10,809
Exploration expenditures	2,447	2,385
	<u>168,864</u>	<u>157,379</u>
	20,029	11,230
Provision for income taxes including Provincial mining taxes	2,935	1,943
Earnings before adjustment for minority interests in subsidiary companies	17,094	9,287
Minority interests in profits (losses) of subsidiaries	114	(411)
NET EARNINGS FROM OPERATIONS	16,980	9,698
Equity in net earnings (loss) of Lornex Mining Corporation Ltd.	(672)	—
NET EARNINGS FOR THE YEAR	<u>\$ 16,308</u>	<u>\$ 9,698</u>
EARNINGS PER COMMON SHARE:		
Net earnings from operations	\$1.32	73¢
Net earnings for the year	\$1.27	73¢

Consolidated Statement of Retained Earnings

YEAR ENDED DECEMBER 31, 1972

(\$000's omitted)

	1972	1971
BALANCE, beginning of year	\$ 73,843	\$ 69,861
Add:		
Net earnings for the year	16,308	9,698
	<u>90,151</u>	<u>79,559</u>
Deduct:		
Dividends on preference shares	796	816
Dividends on common shares	4,900	4,900
	<u>5,696</u>	<u>5,716</u>
BALANCE, end of year	<u>\$ 84,455</u>	<u>\$ 73,843</u>

Consolidated Statement of Contributed Surplus

YEAR ENDED DECEMBER 31, 1972

(\$000's omitted)

	1972	1971
BALANCE, beginning of year	\$ 19,581	\$ 19,523
Profit on purchase of preference shares for cancellation	74	58
BALANCE, end of year	<u>\$ 19,655</u>	<u>\$ 19,581</u>

Consolidated Statement of Changes in Financial Position

YEAR ENDED DECEMBER 31, 1972

(\$000's omitted)

SOURCE OF FUNDS:	1972	1971
Net earnings before equity in loss of Lornex Mining Corporation Ltd.	\$ 16,980	\$ 9,698
Add (deduct) items included in earnings for the year not involving current outlay (receipt) of funds:		
Depreciation, amortization and other charges (net)	12,299	10,703
Interest on Lornex Income Debentures	(909)	—
	<u>28,370</u>	<u>20,401</u>
DISPOSITION OF FUNDS:		
Expenditures (net) for plant and equipment, mining properties and preproduction ..	8,850	11,594
Investment in Lornex Mining Corporation Ltd. (net) (note 3)	3,155	11,702
Dividends on preference shares	796	816
Dividends on common shares	4,900	4,900
Reduction of long term debt	2,000	2,000
Increase in settlements receivable — 1974	6,903	—
Purchase of preference shares for cancellation	342	299
	<u>26,946</u>	<u>31,311</u>
Increase (decrease) in working capital before the following:	1,424	(10,910)
Reduction in consolidated working capital due to sale of company's interest in Anglo-Rouyn Mines Limited	1,390	—
INCREASE OR (DECREASE) IN WORKING CAPITAL	<u>\$ 34</u>	<u>\$(10,910)</u>

Notes to Consolidated Financial Statements

DECEMBER 31, 1972

1. ACCOUNTING POLICIES

The information on page 15 presents a summary of certain accounting policies and is an integral part of these financial statements.

2. INVENTORIES AND CONCENTRATES AWAITING SHIPMENT

These consist of:

	1972	1971
Mining operations —		
Mine supplies	\$ 2,326,158	\$ 2,484,641
Concentrates awaiting shipment	26,622,022	18,204,706
	<u>28,948,180</u>	<u>20,689,347</u>
Steel operations —		
Steel, other metals, raw materials and supplies	43,526,260	46,519,531
	<u>\$72,474,440</u>	<u>\$67,208,878</u>

3. INVESTMENT IN LORNE MINING CORPORATION LTD.

This consists of the following:

	1972	1971
Investment in shares and Units comprising 8½ % Income Debentures and shares of Lorne, at cost (a)	\$39,259,707	\$36,104,707
Equity in net earnings (loss) of Lorne for period (b)	(671,822)	—
Accrued interest on Income Debentures and interim advances (c) ..	6,547,228	3,241,503
	<u>45,135,113</u>	<u>39,346,210</u>
Deduct adjustments relating to interest and financing expenses capitalized by Lorne in preproduction period (b)	5,554,645	3,241,503
	<u>\$39,580,468</u>	<u>\$36,104,707</u>

(a) Represented by following securities of Lorne:

8½ % Income Debentures — par value	\$36,097,000	\$32,942,000
Common shares	3,665,952 shs.	3,569,292 shs.
Class A shares	867,758 shs.	712,018 shs.

In each year the Company owned 50.0% of the common shares and 100% of the Class A shares of Lorne. The Class A shares are non-voting but may be exchanged for common shares of Lorne at any time. The Company's beneficial interest in Lorne is 55.29%.

(b) The Company follows the equity method of accounting for its investment in Lorne. At December 31, 1972 the Company's equity in the net assets of Lorne exceeded the cost of its investment by \$2,950,000 (\$2,673,000 at December 31, 1971) and this excess is being amortized over the estimated ore reserves of Lorne. Lorne was designated as an operating mine as of October 1, 1972 and the amount of such amortization, \$28,000, for the period ended December 31, 1972 is included in adjustments as above and in the Company's net earnings for the year.

(c) The accrued interest on Income Debentures and interim advances to Lorne cannot be paid by Lorne until after required principal and interest repayments have been made on senior forms of Lorne debt.

4. PLANT AND EQUIPMENT

Plant and equipment consists of:	1972	1971
Buildings, machinery and equipment and construction in progress, at cost	\$204,831,597	\$213,377,528
Less accumulated depreciation	131,895,886	137,777,061
	<u>\$ 72,935,711</u>	<u>\$ 75,600,467</u>
Land, at cost	2,048,511	2,089,666
	<u>\$ 74,984,222</u>	<u>\$ 77,690,133</u>

Plant and equipment includes \$62,673,536 in respect of assets of mines presently idle which have been fully depreciated.

5. MINING PROPERTIES AND PREPRODUCTION EXPENDITURES

These consist of:

	1972	1971
Mining properties, at cost	\$ 8,090,594	\$ 7,321,527
Less accumulated amortization	5,945,251	5,895,091
	<u>2,145,343</u>	<u>1,426,436</u>
Preproduction expenditures, at cost less amortization	20,813,069	20,815,450
	<u>\$22,958,412</u>	<u>\$22,241,886</u>

6. OTHER COSTS APPLICABLE TO FUTURE PERIODS

These include the following:

	1972	1971
Discount and financing expenses, at cost less amortization	\$ —	\$ 383,081
Excess of acquisition cost over adjusted book value of Atlas Steels assets, less amortization	10,464,892	11,511,992
	<u>\$10,464,892</u>	<u>\$11,895,073</u>

7. LONG TERM DEBT

This consists of:

	1972	1971
5¾% Sinking Fund Debentures Series A, maturing on April 1, 1983 ...	\$31,152,000	\$33,400,000
Less portion included in current liabilities	1,152,000	1,400,000
	<u>\$30,000,000</u>	<u>\$32,000,000</u>

The Company is required to make sinking fund payments for the retirement of the Sinking Fund Debentures in principal amounts as follows:

- \$2,000,000 on October 1 in each of the years 1973 to 1978; and
- \$2,500,000 on October 1 in each of the years 1979 to 1982.

At December 31, 1972 \$848,000 principal amount had been purchased to meet the sinking fund requirements in 1973.

8. OWNERSHIP

Ownership was evidenced by:

	1972	1971
Capital stock		
Authorized:		
484,838 First Preference Shares with a par value of \$100 each, issuable in series		
15,000,000 Common Shares without par value		
Issued:		
134,838 \$5.80 Cumulative Redeemable First Preference Shares Series A (139,000 at December 31, 1971) (redeemable at premiums ranging from 4½ % to 1%)	\$ 13,483,800	\$ 13,900,000
12,249,584 Common Shares	72,437,504	72,437,504
	<u>85,921,304</u>	<u>86,337,504</u>
Contributed surplus	19,654,793	19,580,712
Retained earnings	84,454,570	73,843,456
Total	<u>\$190,030,667</u>	<u>\$179,761,672</u>

- (i) During the year 4,162 First Preference Shares were purchased for cancellation, thereby satisfying the Company's 1972 obligation referred to in note 9(iii) below.
- (ii) At December 31, 1972, 99,600 Common Shares were reserved under a Stock Option Plan. Outstanding options have been granted to employees to purchase:
 - 19,100 shares at a price of \$24.64 per share on or before March 30, 1977 (options on 1,000 shares were extinguished during 1972); and
 - 23,495 shares at a price of \$28.35 per share on or before April 1, 1978 (options on 5,005 shares were extinguished during 1972).
- (iii) There are restrictions on the payment of dividends in the provisions attaching to the Preference Shares and the Company's trust indenture relating to the Series A Debentures.

9. COMMITMENTS AND CONTINGENT LIABILITIES

The following commitments and contingent liabilities were outstanding at December 31, 1972:

- (i) Estimated total cost to complete capital projects was approximately \$3,100,000 (committed approximately \$1,315,000);
- (ii) Minimum annual rentals upon real property with original lease terms extending beyond December 31, 1975, amounted to approximately \$790,000;
- (iii) The Company is obligated on April 1 in each year to set aside \$300,000 as a retirement fund, to be used to purchase or redeem Preference Shares;
- (iv) The Company has agreed to incur on behalf of Lornex Mining Corporation Ltd. operating costs of Lornex incurred prior to August 1, 1976. If Lornex is unable to reimburse the Company for any such costs the Company may elect to receive Units of Income Debentures and Class A shares of Lornex instead of cash at a later date; the Company's potential liability for unreimbursed costs is \$9,507,000; and
- (v) Unfunded liability for pension funds at December 31, 1972 was estimated at \$2,824,000 including provisions for improvements in pension benefits which were approved by the directors in April 1972. This is presently being funded over a period of 16 years as follows:
 - (i) \$333,700 per annum for 1973 to 1975,
 - (ii) \$243,600 per annum for 1976 to 1977, and
 - (iii) \$213,600 per annum for 1978 to 1988 inclusive.

10. REMUNERATION OF DIRECTORS AND SENIOR OFFICERS

During the year ended December 31, 1972 the aggregate direct remuneration paid or payable by the Company and its consolidated subsidiaries to the Directors and Senior Officers of the Company was \$559,153.

11. DEPRECIATION AND AMORTIZATION

This consists of the following provisions:	1972	1971
Plant and equipment	\$ 8,393,787	\$ 7,790,810
Mining properties and preproduction expenditures.....	1,804,255	1,971,073
	<u>10,198,042</u>	<u>9,761,883</u>
Excess of acquisition cost over adjusted book value of Atlas Steels assets acquired	1,047,100	1,047,100
	<u>\$11,245,142</u>	<u>\$10,808,983</u>

Comparative Consolidated Earnings by Operation

YEAR ENDED DECEMBER 31, 1972

(\$000's omitted)

MINING	1972	1971
Revenue from mine production	\$ 54,629	\$ 46,857
Expenses:		
Cost of production and administration	26,591	26,605
Depreciation and amortization	4,709	4,445
Exploration expenditures	2,447	2,385
Minority interest in profit (loss) of subsidiary	106	(414)
Total expenses	33,853	33,021
Net earnings from operations before interest and taxes	20,776	13,836
STEEL		
Revenue from sales of steel and other products	132,589	121,172
Expenses:		
Cost of sales, selling and administration	122,679	112,757
Depreciation	5,416	5,234
Amortization of excess of acquisition cost over adjusted book value of assets acquired	1,047	1,047
Minority interest in profit of subsidiary	8	3
Total expenses	129,150	119,041
Net earnings from operations before interest and taxes	3,439	2,131
CORPORATE		
Expenses:		
Cost of administration	3,009	2,578
Interest	2,731	2,470
Amortization of discount and financing expenses	162	162
Depreciation	73	82
Total expenses	5,975	5,292
Less investment and other income	1,675	966
Net expense for the year	(4,300)	(4,326)
NET EARNINGS FROM OPERATIONS BEFORE PROVISION FOR TAXES	19,915	11,641
Provision for taxes:		
Provincial mining taxes	2,394	1,513
Income taxes	541	430
	2,935	1,943
NET EARNINGS FROM OPERATIONS	16,980	9,698
Equity in net loss of Lornex Mining Corporation Ltd.	(672)	—
NET EARNINGS FOR THE YEAR	\$ 16,308	\$ 9,698

Note:

The 1971 figures shown in the above statement differ in certain respects from those previously reported by reason of reclassification for comparative purposes of certain items contained therein.

Rio Algom Operations and Affiliates

Canada

MINING

Head Office—Toronto, Ontario
New Quirke, Elliot Lake, Ont.
Mines de Poirier, Joutel, Quebec
Lornex Mining Corporation Ltd., Vancouver, B.C.,
Property at Ashcroft, B.C.

EXPLORATION

Rio Tinto Canadian Exploration Limited,
(Riocanex)
Head Office—Toronto, Ontario
Branch Offices—Vancouver, B.C., Noranda, P.Q.

STEEL

Atlas Steels Company, Head Office—Welland,
Ontario
Plants at Welland, Ontario
and Tracy, Quebec

METAL DISTRIBUTION

Atlas Alloys, Head Office—Toronto, Ontario
Service Centres at Toronto, Etobicoke,
Winnipeg, Montreal, Windsor,
Edmonton, Vancouver

United States

MINING

Rio Algom Corporation, Wilmington, Delaware
Property at Moab, Utah

EXPLORATION

Rioamex, Division of Atlas Alloys Inc.,
Denver, Colo.

METAL DISTRIBUTION

Atlas Alloys Inc., Head Office—Cleveland, Ohio
Service Centres at Cleveland,
Ohio and Detroit, Mich.

Overseas

METAL DISTRIBUTION

Atlas Alloys Limited, Dunstable, Beds., England
Atlas Steels (Australia) Pty. Limited, Melbourne
Australia
Atlas Steels S.A., Lausanne, Switzerland
Aceromex-Atlas S.A., Mexico City, Mexico
Agents or Distributors in other countries

Principal Associates

Canada

Brinco Limited
Churchill Falls (Labrador) Corporation Limited
One Westmount Square, Montreal, Quebec
Indal Canada Limited
52 Arrow Road, Weston, Ontario

United Kingdom

The Rio Tinto-Zinc Corporation Limited
Anglesey Aluminium Limited
R.T.Z. Britain Limited
R.T.Z. Pillar Limited
6 St. James's Square, London, SW1Y 4LD
A. M. & S. Europe Limited
1 Redcliff Street, Bristol, BS99 7EA
Capper Pass & Son Limited
Melton Works, North Ferriby, Yorkshire
Borax (Holdings) Limited
Borax House, Carlisle Place, London, SW1P 1HT

Commonwealth of Australia

Conzinc Riotinto of Australia Limited
N.B.H.C. Holdings Limited
Australian Mining & Smelting Company Limited
The Zinc Corporation Limited
The Broken Hill Associated Smelters Pty. Limited
Sulphide Corporation Pty. Limited
Queensland Alumina Limited
Comalco Limited
Hamersley Iron Pty. Limited
Mary Kathleen Uranium Ltd.
Bougainville Mining Limited
95 Collins Street, Melbourne, 3001, Victoria

Republic of South Africa

Rio Tinto Holdings Limited
Palabora Mining Company Limited
Rossing Uranium Limited
70 Marshall Street, Johannesburg

United States of America

Rio Tinto-Zinc Corporation of America
The Pyrites Company, Inc.
P.O. Box 1188, Christina Avenue
Wilmington, Delaware 19899
Ireco Chemicals
Suite 726, Kennecott Bldg.,
East South Temple Street,
Salt Lake City, Utah 84111
United States Borax & Chemical Corporation
3075 Wilshire Boulevard, Los Angeles
California 90005

Spain

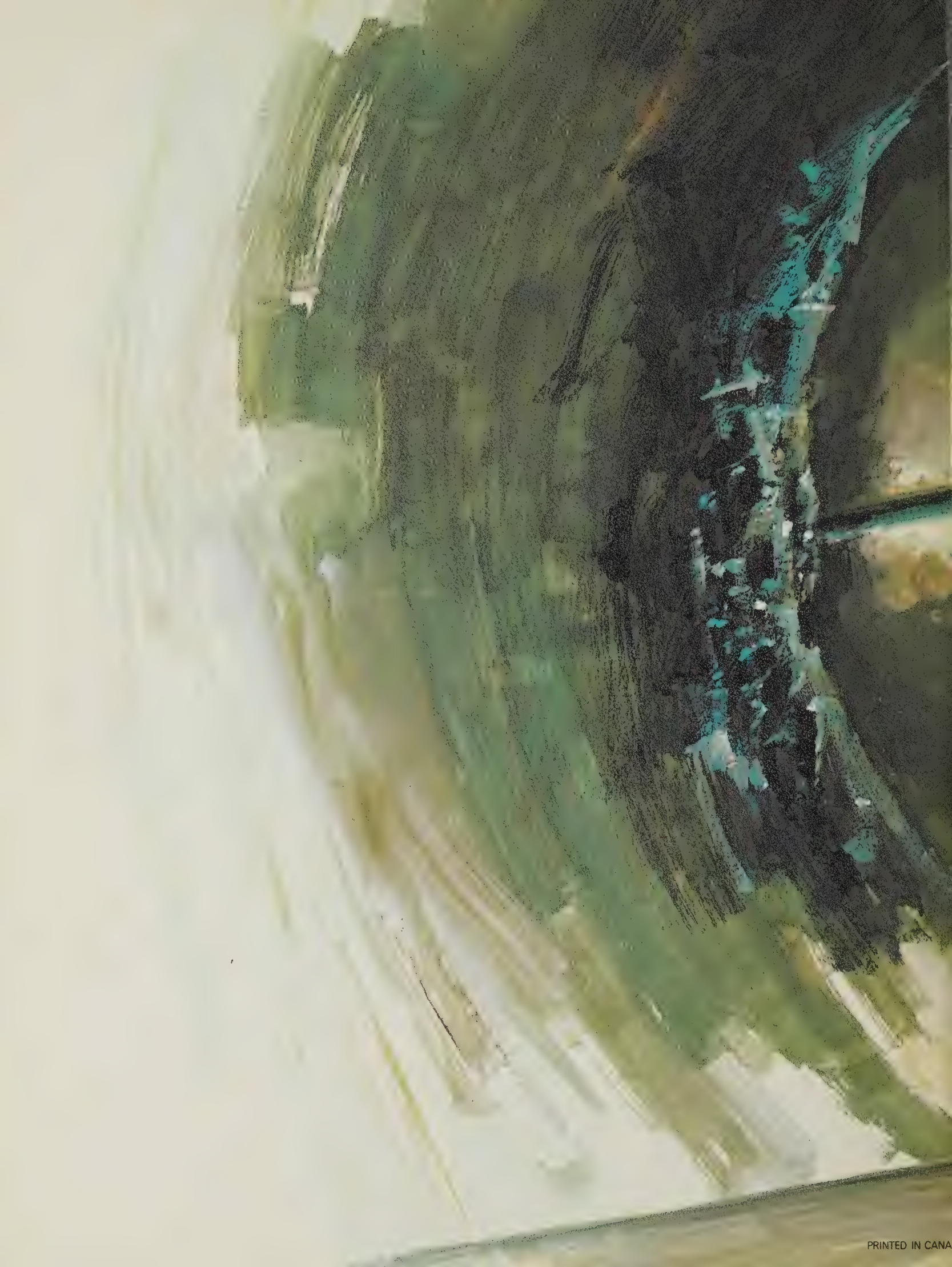
Union Explosivos Rio Tinto S.A.
Paseo De La Castellana, 20 Madrid 1

Japan

Rio Tinto-Zinc (Japan) Limited
Shin Tokyo Building,
2,3-Chome Marunouchi, Chiyoda-Ku,
Tokyo 100

Miscellaneous Corporate Information

Head Office	120 Adelaide St. West, Toronto, Ontario, Canada M5H 1W5
Principal Bankers	Canadian Imperial Bank of Commerce, Toronto The Toronto-Dominion Bank, Toronto First National City Bank, New York
Solicitors	Fasken & Calvin, Toronto Fried, Frank, Harris, Shriver and Jacobson, New York
Auditors	Coopers & Lybrand, Chartered Accountants, Toronto
Registrars and Transfer Agents	Common Shares Canada Permanent Trust Company, Toronto, Montreal, Winnipeg, Calgary and Vancouver The Canadian Bank of Commerce Trust Company, New York Preference Shares Canada Permanent Trust Company, Toronto, Montreal, Halifax, Winnipeg and Vancouver
Shares Listed	Toronto Stock Exchange, Toronto Montreal Stock Exchange, Montreal American Stock Exchange, New York



Rio Algom

Rio Tinto

Rio Algom Mines Limited

Interim Report to the Shareholders
for the six months ended June 30, 1972

TO THE SHAREHOLDERS:

Net earnings for the first six months of 1972 were \$7,582,000 as compared with \$5,129,000 for the same period in 1971, an increase of 48%. The comparative net earnings per common share were 59¢ and 39¢ respectively. Revenue from mine production and sales of steel and other products totalled \$92,479,000, about 8% higher than in the 1971 period.

Earnings from mining operations increased substantially over the comparable period in 1971, due mainly to higher uranium grades and an improvement in the uranium sales mix. Copper earnings declined primarily because of lower millhead grades at Mines de Poirier.

Earnings from steel operations were about equal to the first half of 1971. The monthly earnings trend is upward in 1972 compared with the declining trend experienced in the first six months of 1971. Investigations by the Federal Government are continuing with respect to the alleged dumping into Canada of stainless flat rolled steel from Japan and Sweden and alloy steel bars from Sweden and Austria.

As previously reported it was expected that two new mines, the wholly-owned Lisbon uranium mine in Utah and the Lornex copper-molybdenum mine in British Columbia in which the Company's beneficial interest is approximately 55%, would be brought into production in the second quarter of 1972. Delays have occurred in both cases and it is now expected that these mines will commence production early in the third quarter of 1972.

At the Lisbon mine a Provisional Permit for Raw Material Licensing was received June 7, 1972 from the United States Atomic Energy Commission. No commercial operation could be commenced until this permit was received. After receipt of the permit, 3,248 tons of ore were milled in June containing some 14,000 lbs. of U_3O_8 , all of which remained in the mill circuit. It is now expected that this mine will be classified as a production operation during the third quarter.

The first ore was processed at Lornex in April, somewhat later than had been planned because of delays in completion of construction. This delay, together with milling stoppages caused by mechanical malfunctions that are normal in the early stages of an operation of this type and the variations in milling rate that occur during the process of achieving the ore blend required for effective autogenous milling, prevented attainment of the planned milling rate schedule.

The union contract at Lornex expired on June 30; a new agreement was not reached by the expiry date and the operation was shut down by a strike on July 3.

Negotiations were resumed during July and a memorandum of agreement was signed on July 31. If, as expected, this agreement is ratified by the union membership, normal operations should be resumed by August 7.

Prior to the strike the process of balancing the autogenous milling operation was proceeding satisfactorily and the milling rate had been increasing on an orderly basis. For the month of June a total of 717,456 tons of ore was milled for an average of 23,921 tons per day. An average daily rate of 29,244 tons was achieved in the last week of June. Grades and recoveries were normal for this stage of the operation.

The first shipment of Lornex copper concentrates to Japan from Vancouver was made on July 11, 1972. A total of 14,245 dry metric tons of concentrates was shipped, containing approximately 9,900,000 payable pounds of copper.

In accordance with the provisions of the Lornex loan agreements the effective date of commencement of commercial production will be August 1.

Because of the delays and interruptions, low labour productivity and high overtime costs during the final stages of construction there will be a relatively minor increase in the final capital cost of the project over the estimate of \$138.0 million previously reported.

In accordance with the supplementary financing provisions of the Construction and Management Agreement the additional funds will be provided by Rio Algom purchasing Lornex Units of Income Debentures and shares when the amount is determined. Under the terms of another agreement The Yukon Consolidated Gold Corporation Limited must purchase 17.5% of such Units at cost from Rio Algom and may purchase an additional 10% thereof on the same basis.

As previously reported, the Japanese purchasers of the concentrates have requested Lornex to revise certain of the terms of its sales contract. In this connection the Canadian Federal Government had requested the Canadian producers, including Lornex, to refrain from making amendments to established legal obligations relating to the sale of copper concentrates to Japanese purchasers until April 30, 1972. Subsequently the government released Lornex from this request and several meetings have been held with the Japanese purchasers. No conclusions have been reached as yet and negotiations are still in progress.

Toronto, Canada
July 31, 1972

R. D. ARMSTRONG
President

Subject to year-end audit and adjustments.

RIO ALGOM MINES LIMITED

CONSOLIDATED STATEMENT OF EARNINGS

for the six months ended June 30, 1972

(\$000's omitted)

	1972	1971
Revenue from mine production and sales of steel and other products	\$92,479	\$85,521
Investment and other income	32	310
	<u>92,511</u>	<u>85,831</u>
Deduct:		
Cost of production, purchased products, selling and administrative expenses	75,262	72,310
Interest and amortization of discount and financing expenses	1,122	1,106
Depreciation and amortization	6,283	5,257
Exploration expenditures	880	1,274
	<u>83,547</u>	<u>79,947</u>
	8,964	5,884
Provision for income taxes including Provincial mining taxes	1,534	861
	<u>7,430</u>	<u>5,023</u>
Minority interest in profits (losses) of subsidiaries	(152)	(106)
Net earnings for the period	<u>\$ 7,582</u>	<u>\$ 5,129</u>
Preference dividends	<u>\$ 402</u>	<u>\$ 412</u>
Net earnings per common share	<u>59¢</u>	<u>39¢</u>

The net earnings per common share are calculated after providing for dividends on first preference shares and are based on the average number of common shares outstanding during the respective periods.

RIO ALGOM MINES LIMITED

CONSOLIDATED STATEMENT OF SOURCE AND DISPOSITION OF FUNDS

for the six months ended June 30, 1972

(\$000's omitted)

	<i>1972</i>	<i>1971</i>
Source of funds:		
Net earnings for the period	\$ 7,582	\$ 5,129
Add depreciation, amortization and other charges (net) to operations not involving current outlay of funds	6,257	5,296
	13,839	10,425
Disposition of funds:		
Expenditures (net) for plant and equipment and preproduction	5,442	4,492
Investment in Lornex Mining Corporation Ltd.	—	1,101
Dividends on preference shares	402	412
Dividends on common shares	2,450	2,450
Purchase of preference shares for cancellation	65	137
	8,359	8,592
 Increase in working capital	 \$ 5,480	 \$ 1,833

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